STATE OF CONNECTICUT

House of Representatives

General Assembly

File No. 336

January Session, 2003

Substitute House Bill No. 6503

House of Representatives, April 14, 2003

The Committee on Environment reported through REP. WIDLITZ of the 98th Dist., Chairperson of the Committee on the part of the House, that the substitute bill ought to pass.

AN ACT CONCERNING INDOOR ENVIRONMENTAL QUALITY IN SCHOOLS.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

- 1 Section 1. Subsection (c) of section 10-206 of the general statutes is
- 2 repealed and the following is substituted in lieu thereof (Effective
- 3 October 1, 2003):
- 4 (c) Each local or regional board of education shall require each pupil
- 5 enrolled in the public schools to have health assessments <u>in either</u>
- 6 grade three or four, in either grade six or grade seven and in either
- 7 grade ten or grade eleven. The assessment shall include: (1) A physical
- 8 examination which shall include hematocrit or hemoglobin tests,
- 9 height, weight, blood pressure, and, beginning with the 2003-2004
- school year, a chronic disease assessment which shall include, but not
- be limited to, asthma as defined by the Commissioner of Public Health
- pursuant to subsection (c) of section 19a-62a. The assessment form
- 13 shall include (A) a check box for the provider conducting the

14 assessment, as provided in subsection (a) of this section, to indicate an 15 asthma diagnosis, (B) screening questions relating to appropriate 16 public health concerns to be answered by the parent or guardian, and 17 (C) screening questions to be answered by such provider; (2) an 18 updating of immunizations as required under section 10-204a, 19 provided a registered nurse may only update said immunizations 20 pursuant to a written order of a physician or physician assistant, 21 licensed pursuant to chapter 370, or an advanced practice registered 22 nurse, licensed pursuant to chapter 378; (3) vision, hearing, postural 23 and gross dental screenings; and (4) such other information including a 24 health history as the physician feels is necessary and appropriate. The 25 assessment shall also include tests for tuberculosis and sickle cell 26 anemia or Cooley's anemia where the local or regional board of 27 education, in consultation with the school medical advisor and the 28 local health department, or in the case of a regional board of education, 29 each local health department, determines that said screening or test is 30 necessary, provided a registered nurse may only perform said tests 31 pursuant to the written order of a physician or physician assistant, 32 licensed pursuant to chapter 370, or an advanced practice registered 33 nurse, licensed pursuant to chapter 378.

- Sec. 2. Subsection (a) of section 10-220 of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2003*):
 - (a) Each local or regional board of education shall maintain good public elementary and secondary schools, implement the educational interests of the state as defined in section 10-4a and provide such other educational activities as in its judgment will best serve the interests of the school district; provided any board of education may secure such opportunities in another school district in accordance with provisions of the general statutes and shall give all the children of the school district as nearly equal advantages as may be practicable; shall provide an appropriate learning environment for its students which includes (1) adequate instructional books, supplies, materials, equipment, staffing, facilities and technology, (2) equitable allocation of resources

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among its schools, and (3) a safe school setting; shall have charge of the schools of its respective school district; shall make a continuing study of the need for school facilities and of a long-term school building program and from time to time make recommendations based on such study to the town; shall undertake maintenance of its facilities, including, but not limited to, the preventative maintenance components of the Environmental Protection Agency's Indoor Air Quality Tools for Schools Program; shall report annually to the Commissioner of Education on the condition of its facilities and the action taken to implement its long-term school building program, which report the commissioner shall use to prepare an annual report that said commissioner shall submit in accordance with section 11-4a to the joint standing committee of the General Assembly having cognizance of matters relating to education; shall advise the Commissioner of Education of the relationship between any individual school building project pursuant to chapter 173 and such long-term school building program; shall have the care, maintenance and operation of buildings, lands, apparatus and other property used for school purposes and at all times shall insure all such buildings and all capital equipment contained therein against loss in an amount not less than eighty per cent of replacement cost; shall determine the number, age and qualifications of the pupils to be admitted into each school; shall develop and implement a written plan for minority staff recruitment for purposes of subdivision (3) of section 10-4a; shall employ and dismiss the teachers of the schools of such district subject to the provisions of sections 10-151 and 10-158a; shall designate the schools which shall be attended by the various children within the school district; shall make such provisions as will enable each child of school age, residing in the district to attend some public day school for the period required by law and provide for the transportation of children wherever transportation is reasonable and desirable, and for such purpose may make contracts covering periods of not more than five years; may place in an alternative school program or other suitable educational program a pupil enrolling in school who is nineteen years of age or older and cannot acquire a sufficient number of credits for

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graduation by age twenty-one; may arrange with the board of education of an adjacent town for the instruction therein of such children as can attend school in such adjacent town more conveniently; shall cause each child five years of age and over and under eighteen years of age who is not a high school graduate and is living in the school district to attend school in accordance with the provisions of section 10-184, and shall perform all acts required of it by the town or necessary to carry into effect the powers and duties imposed by law.

Sec. 3. Section 10-220 of the general statutes is amended by adding subsection (d) as follows (*Effective October 1, 2003*):

(NEW) (d) Prior to January 1, 2008, and every five years thereafter, for every school building that is or has been constructed, renovated or replaced on or after January 1, 2003, a local or regional board of education shall conduct a uniform inspection and evaluation program of the indoor environmental quality within such buildings, such as the Environmental Protection Agency's Indoor Air Quality Tools for Schools Program. The inspection and evaluation program shall include, but not be limited to, a review, inspection or evaluation of the following: (1) The heating, ventilation and air conditioning systems; (2) radon levels in the water and the air; (3) potential for exposure to microbiological airborne particles, including, but not limited to, fungi, mold and bacteria; (4) chemical compounds of concern to indoor air quality including, but not limited to, volatile organic compounds; (5) the degree of pest infestation, including, but not limited to, insect and rodents; (6) the degree of pesticide usage; (7) the presence of and the plans for removal of any hazardous substances that are contained on the list prepared pursuant to Section 302 of the federal Emergency Planning and Community Right-to-Know Act, 42 USC 9601 et seq.; (8) ventilation systems; (9) plumbing, including water distribution systems, drainage systems and fixtures; (10) moisture incursion; (11) the overall cleanliness of the facilities; (12) building structural elements, including, but not limited to, roofing, basements or slabs; and (13) the use of space, particularly areas that were designed to be unoccupied.

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117 Sec. 4. Section 10-291 of the general statutes is repealed and the following is substituted in lieu thereof (*Effective October 1, 2003*):

(a) No school building project for which state assistance is sought shall be undertaken except according to a plan and on a site approved by the [state] Department of Education, the town or regional board of education and by the building committee of such town or district. No such school building project shall be undertaken at an expense exceeding the sum which the town or regional district may appropriate for the project. In the case of a school building project financed in whole or in part by an energy conservation lease purchase agreement, the expense of the project shall not exceed the sum which the town or regional school district approved for the project. In the case of a school building project which is a construction, extension or replacement of a building to be used for public school purposes, the town or regional board of education and the building committee of such town or district shall include in its application a Phase I environmental site assessment in accordance with the American Society for Testing and Materials Standard #1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, or similar subsequent standards. A copy of final plans and specifications for each phase of site development and construction of all school building projects and for each phase thereof including site development shall be filed with the Commissioner of Education subject to the provisions of section 10-292 before the start of such phase of development or construction shall be begun. A town or regional school district may commence a phase of development or construction before completion of final plans and specifications for the whole project provided a copy of the latest preliminary plan and cost estimate for such project which has been approved by the town or regional board of education and by the building committee shall be submitted with the final plans and specifications for such phase. Any board of education which, prior to the approval of a grant commitment by the General Assembly, commences any portion of a school construction project or causes any such project to be let out for bid, shall not be eligible for a school construction grant until a grant

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- 152 commitment is so approved.
- (b) The Department of Education shall not approve a school
- building project plan or site, as applicable, if:
- 155 (1) In the case of a school building project that is a construction,
- extension or replacement of a building to be used for public school
- purposes, the Phase I environmental site assessment indicates that the
- 158 site cannot, within reasonable expenditures, meet the criteria for
- residential properties in the regulations adopted pursuant to section
- 160 22a-133k.
- 161 (2) The site is in an area of moderate or high radon potential, as
- 162 indicated in the Department of Environmental Protection's Radon
- 163 Potential Map, or similar subsequent publications, except where the
- school building project plan incorporates construction techniques to
- mitigate radon levels in the air of the facility.
- 166 (3) The plans incorporate flat-roof construction that does not have
- adequate pitch towards drains in order to prevent the pooling of
- 168 water.
- 169 (4) In the case of a renovation or extension of a building to be used
- 170 for public school purposes, the plans do not incorporate the standards
- 171 provided in the Sheet Metal and Air Conditioning Contractors
- 172 National Association's publication entitled "Indoor Air Quality
- 173 Guidelines for Occupied Buildings Under Construction" or similar
- 174 subsequent publications.
- Sec. 5. (NEW) (Effective October 1, 2003) (a) For purposes of this
- 176 section "Standard 62" means the American Society of Heating,
- 177 Ventilating and Air Conditioning Engineers Standard 62 entitled
- 178 "Ventilation for Acceptable Indoor Air Quality", as referenced by the
- 179 State Building Code adopted under section 29-252 of the general
- 180 statutes.
- (b) Each local or regional board of education shall ensure that its
- heating, ventilation and air conditioning system is (1) maintained and

183 operated in accordance with the prevailing maintenance standards, 184 such as Standard 62, at the time of installation or renovation of such 185 system, and (2) operated continuously during the hours in which 186 students or school personnel occupy school facilities, except (A) during 187 scheduled maintenance and emergency repairs, and (B) during periods for which school officials can demonstrate to the local or regional 188 189 board of education's satisfaction that the quantity of outdoor air 190 supplied by an air supply system that is not mechanically driven meets 191 the Standard 62 requirements for air changes per hour.

- (c) Each local or regional board of education shall maintain records of the maintenance of its heating, ventilation and air conditioning systems for a period of not less than five years.
- Sec. 6. (NEW) (*Effective October 1, 2003*) Notwithstanding the provisions of section 10-286 of the general statutes, the Commissioner of Education shall not include the area necessary to support a heating, ventilation and air conditioning system in the calculation of the number of gross square feet per pupil pursuant to said section 10-286.
- 200 Sec. 7. (NEW) (Effective October 1, 2003) Each local and regional 201 board of education shall establish an indoor environmental quality 202 committee for each school facility to increase staff and student 203 awareness of facets of the environment that affect the health of the 204 occupants of school facilities including, but not limited to, air quality, 205 water quality and the presence of radon, by utilizing the 206 Environmental Protection Agency's Indoor Air Quality Tools for 207 Schools. Such committee shall include, but not be limited to, not less 208 than one administrator, one maintenance staff member, one teacher, 209 one school health staff member, one parent of a student and two 210 members-at-large from the school district.
- Sec. 8. (NEW) (*Effective October 1, 2003*) The Department of Education shall monitor the development by the United States Environmental Protection Agency or other federal agency, a state, a municipality, or any professional organization of guidelines for new school construction and guidelines for acceptable levels of major

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indoor air contaminants in school buildings, including, but not limited to, fungi, mold, bacteria, volatile organic compounds, carbon dioxide, carbon monoxide and formaldehyde.

Sec. 9. (NEW) (*Effective October 1, 2003*) (a) No local or regional board of education may discharge, discipline or otherwise penalize any employee of such board because the employee, or a person acting on behalf of the employee (1) reports, verbally or in writing, a violation or a suspected violation of the preventative maintenance requirement of subsection (a) of section 10-220 of the general statutes, as amended by this act, subsection (d) of section 10-220 of the general statutes, as amended by this act, or section 5 or 7 of this act, or (2) issues opinions or conclusions while participating in the inspection requirement pursuant to subsection (d) of section 10-220 of the general statutes, as amended by this act, or in the activities of the indoor environmental quality committee pursuant to section 7 of this act.

(b) Any employee of such board who believes that a local or regional board of education has violated subsection (a) of this section may request the Attorney General to investigate such matter. The Attorney General shall have power to summon witnesses, require the production of any necessary books, papers or other documents and administer oaths to witnesses, where necessary, for the purpose of investigation. Upon the conclusion of the investigation, the Attorney General shall, where necessary, report the findings to the employee and the local or regional board of education. After the conclusion of such investigation, the Attorney General, the employee or the employee's attorney may file a complaint concerning such personnel action with the Chief Human Rights Referee designated under section 46a-57 of the general statutes. The Chief Human Rights Referee shall assign the complaint to a human rights referee appointed under section 46a-57 of the general statutes, who shall conduct a hearing and issue a decision concerning whether the officer or employee taking or threatening to take the personnel action violated any provision of this section. If the human rights referee finds such a violation, the referee may award the aggrieved employee reinstatement to the employee's

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former position, back pay and reestablishment of any employee benefits to which the employee would otherwise have been eligible if such violation had not occurred, reasonable attorneys' fees and any other damages. For the purposes of this subsection, such human rights referee shall act as an independent hearing officer. The decision of a human rights referee under this subsection may be appealed by any person who was a party at such hearing, in accordance with the provisions of section 4-183 of the general statutes.

- (c) The Chief Human Rights Referee shall adopt regulations, in accordance with the provisions of chapter 54 of the general statutes, establishing the procedure for filing complaints and noticing and conducting hearings under this section.
- (d) In any proceeding under this section concerning a personnel action taken or threatened against an employee of a local or regional board of education, which personnel action occurs within one year after the employee first transmits facts and information concerning a matter under subsection (a) of this section to the Attorney General, there shall be a rebuttable presumption that the personnel action is in retaliation for the action taken by the employee under subsection (a) of this section.
- (e) Any employee of a local or regional board of education who is found to have knowingly and maliciously made false charges under subsection (a) of this section shall be subject to disciplinary action by such board, including, but not limited to, dismissal.

This act shall take effect as follows:				
Section 1	October 1, 2003			
Sec. 2	October 1, 2003			
Sec. 3	October 1, 2003			
Sec. 4	October 1, 2003			
Sec. 5	October 1, 2003			
Sec. 6	October 1, 2003			
Sec. 7	October 1, 2003			
Sec. 8	October 1, 2003			

Sec. 9 October 1, 2003

ENV Joint Favorable Subst.

The following fiscal impact statement and bill analysis are prepared for the benefit of members of the General Assembly, solely for the purpose of information, summarization, and explanation, and do not represent the intent of the General Assembly or either House thereof for any purpose:

OFA Fiscal Note

State Impact:

Agency Affected	Fund-Type	FY 04 \$	FY 05 \$	Out Years
Education, Dept.	Various - Cost	None	None	Significant

Municipal Impact:

Municipalities	Effect	FY 04 \$	FY 05 \$	Out Years
All	STATE	None	None	Significant
Municipalities	MANDATE			
_	- Cost,			
	Revenue			
	Gain			

Explanation

This bill results in significant additional costs to the state that in turn is a revenue gain to local and regional school districts. This cost is associated with excluding the area needed to support the HVAC system from the square footage calculations for school reimbursement projects. Currently state regulations limit state reimbursements based on building square footage as it relates to projected student population. The exact cost would be dependent upon the size and scope of new school construction projects, which is not known therefore no exact cost can be determined.

The bill also results in future costs to local and regional school districts due to requirements for the inspection and evaluation of indoor air quality in schools beginning in FY 08 and every five years thereafter. Estimates indicate that this monitoring and evaluation could cost as much as \$4,000 per school. There are approximately 1,000 school buildings in the state. The results of these assessments

could result in additional increased costs to local and regional school districts, as various forms of remediation may be required based on such assessments. A portion of the remediation may be reimbursable by the state. The cost of remediation and the ongoing maintenance of the facilities could be offset by decreased costs in terms of health care, workers' compensation claims and the potential of averting higher costs of renovation that could occur if the problems were not rectified over an extended period of time.

Other costs to local and regional school districts include minor costs associated with the formation and operation of indoor air quality committees by local school boards. These costs are associated with meeting minutes and other paperwork related tasks. Additionally the setting of standards for HVAC maintenance will likely result in costs to some school districts associated with staff training, supplies and other sundry expenses.

All other portions of the bill are technical and/or have no fiscal impact.

OLR Bill Analysis

sHB 6503

AN ACT CONCERNING INDOOR ENVIRONMENTAL QUALITY IN SCHOOLS

SUMMARY:

This bill requires that, by January 1, 2008, and every five years thereafter, school boards inspect and evaluate the indoor air quality of school buildings built, renovated or replaced after January 1, 2003. It (1) requires that certain applications for state school building project grants include an environmental site assessment and (2) prohibits the state education department from approving a school building project plan if it does not meet certain conditions related to indoor air quality. It requires school boards to maintain their school buildings, using the preventative maintenance components of the U.S. Environmental Protection Agency's (EPA) Indoor Air Quality Tools for Schools program.

It requires school boards to create indoor environmental quality committees for each school building. Such committees must use Tools for Schools to increase staff and student awareness of indoor environmental factors affecting their health, such as air quality, water quality, and the presence of radon. Each committee must consist of at least one administrator, one maintenance staff member, one teacher, one school health staff member, one parent, and two members-at-large from the school district.

By law, teachers and other school board employees cannot be discharged, disciplined, or otherwise penalized for reporting a violation or suspected violation of state law by their employer. The law allows such an employee to sue her employer for reinstatement, back pay and benefits after she has exhausted all administrative remedies. The law also allows a school board to take disciplinary action against any employee, including dismissal, if the employee knowingly or maliciously made false charges. The bill specifically bars school boards from discharging, disciplining, or otherwise punishing an employee who reports violations or suspected violations of the bill's provisions. The bill also bars such retaliation against a school board

employee who issues an opinion or conclusion after inspecting the building or while participating in the activities of the environmental quality committee, and applies to school board employees the same procedures and protections that protect whistleblowers who report on corruption, unethical practices and violations of state laws occurring in state agencies. Any disciplinary action taken by a school board within one year of the employee's reporting is presumed to be retaliatory.

It sets standards that school boards must meet in maintaining their heating, ventilation and air conditioning (HVAC) systems and requires school children to have health assessments in either grade three or four, in addition to the assessments the law already requires.

It requires the education department to monitor the development, by EPA or other federal, state, or municipal agencies, or professional organizations, of guidelines for new school construction and acceptable levels of major indoor air contaminants in schools, including, fungi, mold, bacteria, volatile organic compounds, carbon dioxide, carbon monoxide, and formaldehyde.

The bill excludes the area needed to support an HVAC system from the square footage calculations for school building projects. This will enable school boards to be reimbursed for a larger share of their projects.

EFFECTIVE DATE: October 1, 2003

INSPECTION AND EVALUATION

Beginning by January 1, 2008, and every five years thereafter, school boards must inspect and evaluate school buildings that have been built, renovated, or replaced after January 1, 2003. Using such programs as the Tools for Schools program, the boards must review, inspect and evaluate:

- 1. HVAC systems;
- 2. radon levels in the air and water;
- 3. potential for exposure to microbiological airborne particles, including fungi, mold, and bacteria;

- 4. chemical compounds, including volatile organic compounds;
- 5. degree of pest infestation, including insects and rodents;
- 6. pesticide use;
- 7. presence of, and plans to remove, hazardous substances listed according to Sec. 302 of the U.S. Emergency Planning and Community Right-To-Know Act (42 USC 9601);
- 8. ventilation systems;
- 9. plumbing, plumbing fixtures, and drainage systems;
- 10. leaks;
- 11. overall cleanliness;
- 12. building structural elements, including roofing, basements or slabs; and
- 13. use of space, particularly areas designed to be unoccupied.

WHISTLEBLOWER PROVISIONS

An employee who believes a school board has retaliated against her because of her reports or opinions on indoor air quality may ask the attorney general to investigate the matter. The attorney general can summon witnesses, require the production of necessary documents, and administer oaths to witnesses for the purposes of the investigation. The attorney general must report his findings to the employee and the school board. At the conclusion of the investigation, the attorney general, the employee or her attorney may file a complaint with the Chief Human Rights Referee. The Chief Human Rights Referee must assign the complaint to a human rights referee for a hearing and a decision on whether the whistleblower law has been violated. If the referee finds a violation he may reinstate the employee to her former position, award her back pay and any benefits to which she would have been eligible, reasonable attorney's fees, and any other damages. Any party to the hearing may appeal the referee's decision. The bill requires the Chief Human Rights Referee to adopt regulations regarding the complaint procedure, notice, and hearings.

STATE ASSISTANCE FOR SCHOOL BUILDING PROJECT GRANTS

Environmental Site Assessment Required

The bill requires school boards seeking state financial assistance for school building projects to build, expand, or replace a school building to include in their application a Phase I environmental site assessment in accordance with the American Society for Testing and Materials Standard #1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, or similar standards.

Grounds For Rejecting School Project Plans Or Sites

The bill bars the state education department from approving a school building project plan or site if (1) the site is in an area of moderate or high radon potential, as indicated in the Department of Environmental Protection's (DEP) Radon Potential Map, unless the plan incorporates construction techniques to mitigate radon levels in the air, or (2) the plan incorporates flat-roof construction that does not have adequate pitch towards drains to prevent the pooling of water.

The department also cannot approve a new, expanded or replacement school building if the Phase I environmental site assessment indicates the site cannot, within reasonable expenditures, meet the regulatory criteria for residential properties, and in the case of expanded or renovated buildings, the plans do not incorporate the standards provided in the Sheet Metal and Air Conditioning Contractors National Association's publication "Indoor Air Quality Guidelines for Occupied Buildings Under Construction" or similar publications.

HVAC MAINTENANCE AND OPERATION

The bill adopts as its standard for indoor air quality ventilation, American Society of Heating, Refrigeration, and Air Conditioners Standard 62 "Ventilation for Acceptable Indoor Air Quality," as referenced by the State Building Code. Each school board must ensure that its HVAC system is maintained and operated (1) according to the maintenance standards in effect when the system was installed or renovated, and (2) continuously while students or school personnel are in the building. However, the school need not operate the system

during (1) scheduled maintenance and emergency repairs, and (2) periods in which officials can show to the board's satisfaction that the amount of outdoor air entering the building without mechanical assistance meets System 62 requirements for hourly air changes. Each board must maintain its HVAC records for five years.

BACKGROUND

Tools for Schools

EPA created the Indoor Air Quality Tools for Schools Action Kit to help schools identify and address indoor air quality issues. Schools and districts throughout Connecticut have implemented the program through the efforts of the Connecticut School Indoor Environment Resource Team (CSIERT), a consortium of 16 agencies and organizations. The Tools for Schools training program has two parts. The first component involves members of CSIERT's resource team presenting the program to a school's staff and administrators. If the school decides to participate, the resource team sets up the training to help it implement the program.

Emergency Planning and Community Right to Know Act

This 1986 act encourages and supports emergency planning efforts at the state and local levels, and provides the public and local governments with information about potential chemical hazards in their communities.

COMMITTEE ACTION

Environment Committee

Joint Favorable Substitute Yea 25 Nay 0